CREO
CITTA

Ferguson Bros (P.G.) Ld

Yard No. 377

"Empire Freida"

Profile & Deck

as fitted

2

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Lloyd's Register
Foundation

006564-006572-0084

PROFILE & DECK PLAN.

"EMPIRE FRIEDA".

DIMENSIONS - 115'-0" BP. × 27'-6" MLD × 13'-6" MLD.

TO CLASS ✠ 100 A1. FOR TOWING SERVICES.

SCALE :- ¼ INCH = 1 FOOT.

FERGUSON BROTHERS (PORT-GLASGOW) LIMITED
SHIPBUILDERS, ENGINEERS AND DREDGER BUILDERS
PORT GLASGOW.

CAPTAINS HOUSE.
WHEELHOUSE.
2 WASHPLACES, W.C., PORT.
2 GALLEYS STARBOARD.
BUNKER TRUNK.
ENGINE CASING.
BOILER CASING.
ACCOMMODATION
SKYL.
HATCH PORT.
RECESS 3'-3" DEEP @ DECK @ ℄.
W.T. BHD.
BEAMS 5"×3"×·30" BULB ANGLE
W.T. DIVISION AT ℄.
AFTER PEAK.
STIFFENERS 4"×3"×·30" ANGLE
RUNNER 5"×3"×·30"
BEAMS 5"×3"×·30 BULB ANGLE
HOLD.
W.T. FLAT
BEAMS 4"×2½"×·34" ANGLE.
RUNNERS 5"×3"×·30" ANGLE.
2'-0" TO PORT.
6'-6" TO DK. AT SD.
HALF BEAMS 4"×3"×·30" ANGLE.
SIDE STRINGER 5"×4"×·40 P. & S.
ENGINE ROOM.
SEE ENGINEERS PLAN
O.T. FLOOR.
O.T. BHD.
BEAMS 6"×3"×·30" ANGLE.
TANK HORIZONTAL GIRDER P. & S.
OIL BUNKERS - 4 TANKS IN WIDTH.
OIL TIGHT TUNNEL AT ℄.
BKT.
HALF BEAMS 4"×3"×·34" ANGLE.
SIDE STRINGER 5"×4"×·40. P. & S.
BOILER ROOM.
BILGE KEELSON 5"×4"×·50" O.A.
6'-9" TO DK. AT SD.
RUNNER 5"×3"×·30" ANGLE.
W.T. FLAT BEAMS 4"×3"×·34.
NON W.T. FLAT BEAMS 3"×2½"×·30.
BOILER FEED TANKS.
·25"
RUNNER 5"×3"×·40" ANGLE.
INTCL TO DECK
BEAMS 5"×3"×·30" BULB ANGLE.
PILLARS 2¾" DIA.
ACCOMMODATION
W.T. FLAT BEAMS 4"×3"×·34".
NON W.T. FLAT BEAMS 3"×2½"×·30".
WATER BALLAST TANKS.
W.T. C.R. DIVISION.
CHAINS.
W.T. BHD.
8'-6" TO DK. AT SD.
7'-3" TO DECK AT SD.
BEAMS 5"×3"×·30" BULB ANGLE
BOSUNS STORE.
8'-3" TO DK AT SD. ON FRAME 68.
BEAMS 3"×2½"×·30
PEAK TANK.
1'-6" 1'-7" 1'-10" 10'-10" 8'-11" 3'-9" 18" 1'-11" 2'-0" 2'-6" 3'-0" 3'-9"
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68
KEEL & STEM 7"×1¼"
21" FRAME SPACING.
21½" FRAME SPACING.
18" FRAME SPACING.
TRANSOM FLOOR ·40"
FRAMES 5"×3"×·30" B.A.
FLOORS ·30" 3" FLANGE.
3"×3"×·40
FRAMES 5"×3"×·30 B.A.
FLOORS ·50". REV. FRAMES 3"×3"×·50" DOUBLE
5"×5"×·40"
FRAMES 5"×3"×·30" B.A.
FLOORS ·30 REV. FRS. 3"×2½"×·30"
6"×5"×·40
FRAMES 5"×3"×·36" B.A.
FLOORS ·40" REV. FRS. 3"×2½"×·40"
3"×3"×·40
FRAMES 5"×3"×·30" B.A.
FLOORS ·30" REV. FRS. 3"×2½"×·30"
3"×3"×·40
FRAMES 5"×3"×·30" B.A.
FLOORS ·30" FLANGED 3"
WOOD BELTING
·35 ·30 ·30" ·30. ·30 ·25 ·375
HATCH.
RUNNER UNDER
ENGINE CASING.
6'-3"
BUNKER TRUNK.
WASH PLACE.
W.C.
RAISED 12" ABOVE DK. AT CR.
NATIVE GALLEY.
GALLEY.
BOILER CASING.
8'-9"
DECK STORE.
OILSKIN STORE.
W.C.
RUNNER UNDER
ACCOMMODATION
PILLAR'S 2¾" DIA.
SKYLIGHT.
COMPN.
PASSAGE
5"×2½" WOOD
CANT FRAMES & BEAMS 4"×3"×·30"
BEAMS 5"×3"×·30" B.A.
3"×3"×·40
BEAMS 5"×3"×·30" B.A.
HALF BEAMS 4"×3"×·30" ANGLE
BEAM 5"×5"×·40
BEAMS 6"×3"×·30" ANGLE
5"×5"×·40
HALF BEAMS 4"×3"×·34" ANGLE
BEAMS 5"×3"×·30" B.A.
BEAMS 5"×3"×·30 B.A.

14-12-45

006564-006572-0084

Ferguson Bros (P.G) Ld

Yard No. 377
"Empire Frieda"
Hull Sections
as fitted

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"EMPIRE FRIEDA".

"HULL SECTION."

SCALE :- 1/2" = ONE FOOT.

DIMENSIONS:- 115'-0" B.P. × 27'-6" MLD. × 13'-6" MLD.

TO CLASS ✠ 100 A1 FOR TOWING SERVICES.

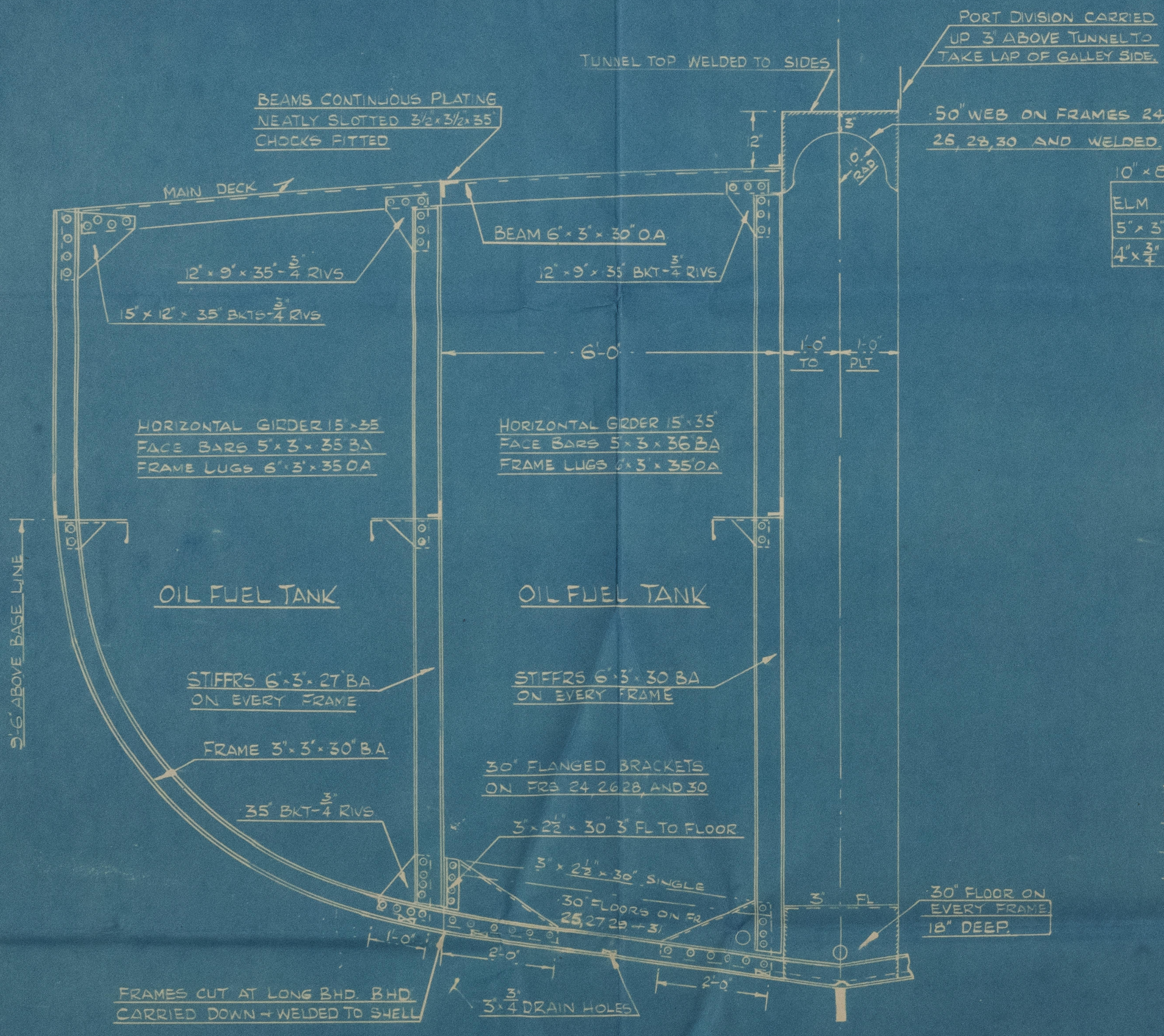
EQUIPMENT.

FIRST BOWER ANCHOR 7¼ CWTS.
SECOND " " 6½ ".
150 FATHOMS 1 1/16" STUD LINK CABLE.
60 6" HEMP HAWSER.
60 5" HEMP WARP.

NUMERALS.

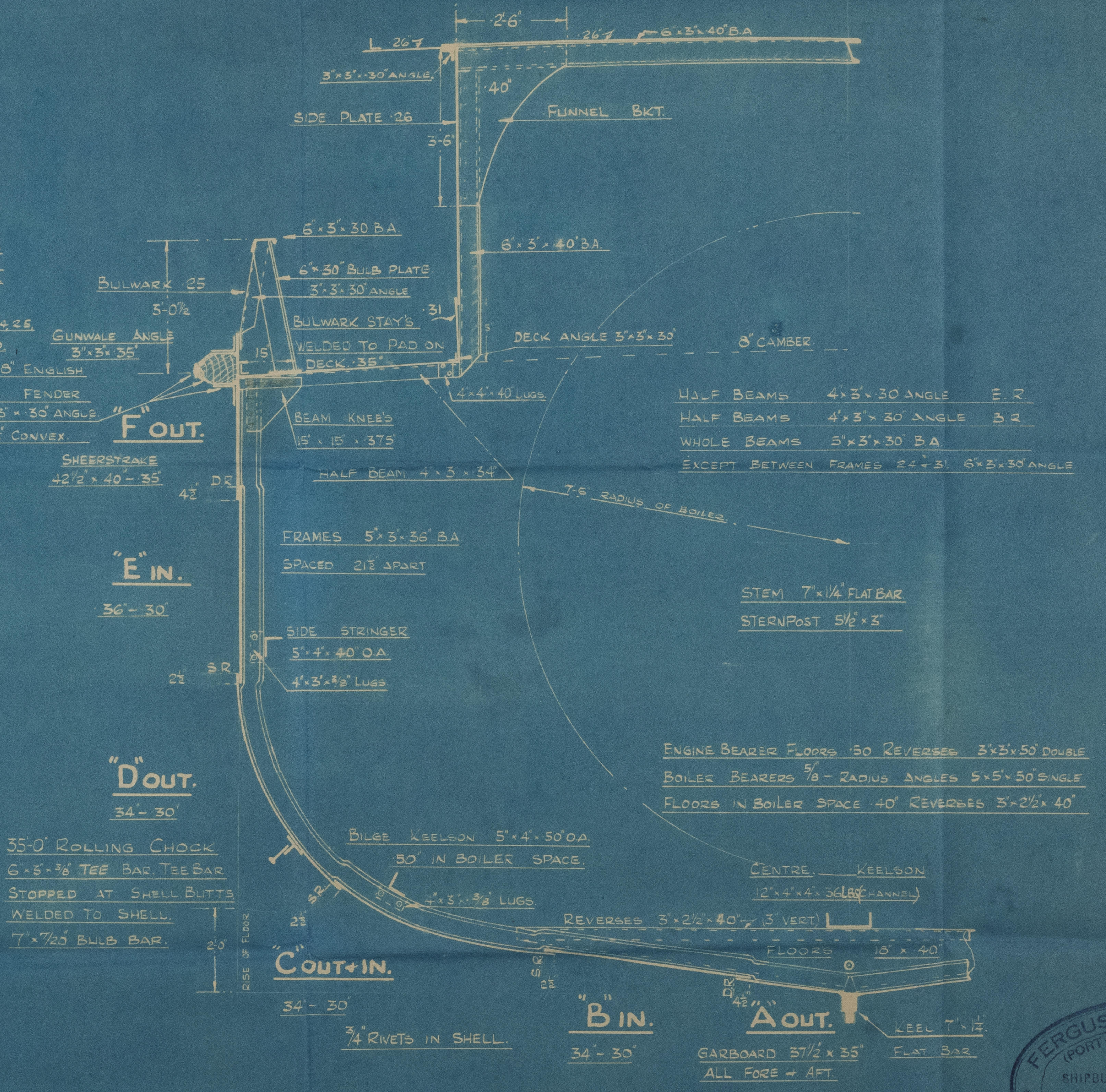
L = 115, B = 27·5, D = 13·5.
L × D = 115 × 13·5 = 1552·5.
L × (B+D) = 115 × (27·5 + 13·5) = 4715.
D = 13·5. L/D = 8·5.

FERGUSON BROTHERS, (PORT-GLASGOW) LIMITED SHIPBUILDERS, ENGINEERS AND DREDGER BUILDERS PORT GLASGOW.
HS
14/3/46


TUNNEL TOP WELDED TO SIDES
PORT DIVISION CARRIED UP 3" ABOVE TUNNEL TO TAKE LAP OF GALLEY SIDE.
BEAMS CONTINUOUS PLATING NEATLY SLOTTED 3½" × 3½" × 35" CHOCKS FITTED
50" WEB ON FRAMES 24, 25, 26, 28, 30 AND WELDED
2"
3"
1'-0" RAD
MAIN DECK
BEAM 6" × 3" × 30" O.A
12" × 9" × 35" - 3/4" RIVS
12" × 9" × 35" BKT - 3/4" RIVS
15" × 12" × 35" BKTS - 3/4" RIVS
6'-0"
1'-0" TO
1'-0" PLT
HORIZONTAL GIRDER 15" × 35
FACE BARS 5" × 3" × 35 BA
FRAME LUGS 6" × 3" × 35 O.A
HORIZONTAL GIRDER 15" × 35"
FACE BARS 5 × 3 × 36 BA
FRAME LUGS 6" × 3" × 35 O.A
9'-6" ABOVE BASE LINE
OIL FUEL TANK
OIL FUEL TANK
STIFFRS 6" × 3" × 27" BA ON EVERY FRAME
STIFFRS 6" × 3" × 30 BA ON EVERY FRAME
FRAME 3" × 3" × 30" B.A
30" FLANGED BRACKETS ON FRS 24, 26, 28, AND 30
35" BKT - 3/4" RIVS
3" × 2½" × 30" 3" FL TO FLOOR
3" × 2½" × 30" SINGLE
30" FLOORS ON FR 25, 27, 29 + 31
3" FL
30" FLOOR ON EVERY FRAME 18" DEEP.
1'-0"
2'-0"
2'-0"
FRAMES CUT AT LONG BHD. BHD. CARRIED DOWN + WELDED TO SHELL
3" × 3/4" DRAIN HOLES

FRAME Nº 28.

LOOKING AFT.


2'-6"
L 26" 7
26" 7
6" × 3" × 40" B.A
3" × 3" × 30" ANGLE.
40"
SIDE PLATE 26
3'-6"
FUNNEL BKT.
6" × 3" × 30 B.A.
6" × 3" × 40" B.A.
6" × 30" BULB PLATE
3" × 3" × 30" ANGLE
BULWARK 25
3'-0½
31
BULWARK STAY'S WELDED TO PAD ON DECK 35"
GUNWALE ANGLE 3" × 3" × 35"
15
10" × 8" ENGLISH ELM FENDER
5" × 3" × 30" ANGLE
4" × 3/4" CONVEX.
DECK ANGLE 3" × 3" × 30"
8" CAMBER
4 × 4" × 40" LUGS.
"F" OUT.
BEAM KNEE'S 15" × 15" × 375"
SHEERSTRAKE 42½" × 40" - 35"
HALF BEAM 4" × 3" × 34"
D.R.
4½"
HALF BEAMS 4" × 3" × 30 ANGLE E.R.
HALF BEAMS 4" × 3" × 30" ANGLE B.R.
WHOLE BEAMS 5" × 3" × 30 B.A.
EXCEPT BETWEEN FRAMES 24 + 31. 6" × 3" × 30" ANGLE
7'-6" RADIUS OF BOILER
FRAMES 5" × 3" × 36" B.A.
SPACED 21½" APART
"E" IN.
36" - 30"
STEM 7" × 1¼" FLAT BAR
STERNPOST 5½" × 3"
SIDE STRINGER 5" × 4" × 40" O.A.
4" × 3" × 3/8" LUGS
S.R.
2½"
ENGINE BEARER FLOORS 50 REVERSES 3" × 3" × 50" DOUBLE
BOILER BEARERS 5/8" - RADIUS ANGLES 5 × 5" × 50" SINGLE
FLOORS IN BOILER SPACE 40" REVERSES 3" × 2½" × 40"
"D" OUT.
34" - 30"
35'-0" ROLLING CHOCK
6" × 3" × 3/8" TEE BAR. TEE BAR
STOPPED AT SHELL BUTTS
WELDED TO SHELL.
7" × 7/20" BULB BAR.
BILGE KEELSON 5" × 4" × 50" O.A.
50" IN BOILER SPACE.
S.R.
2½"
4" × 3" × 3/8" LUGS.
CENTRE KEELSON 12" × 4" × 4" × 36 LBS (CHANNEL)
REVERSES 3" × 2½" × 40" (3" VERT.)
2'-0"
RISE OF FLOOR
FLOORS 18" × 40"
"C" OUT + IN.
34" - 30"
S.R.
2½"
D.R.
4½"
3/4" RIVETS IN SHELL.
"B" IN.
34" - 30"
"A" OUT.
GARBOARD 37½" × 35" ALL FORE + AFT.
KEEL 7" × 1¾" FLAT BAR

FERGUSON BROTHERS, (PORT-GLASGOW) LIMITED SHIPBUILDERS, ENGINEERS AND DREDGER BUILDERS PORT GLASGOW.

MIDSHIP SECTION.

SCALE :- 1/2" = ONE FOOT.

YARD Nº 377-8.
C. C.

006564-006572-0086

Ferguson Bros. (P.G.) Ld

Yard No. 377-8.

Arrgt of Bossing

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377

"EMPIRE FRIEDA".

GRK. FIRST ENTRY ENTRY RPT. No. 23237

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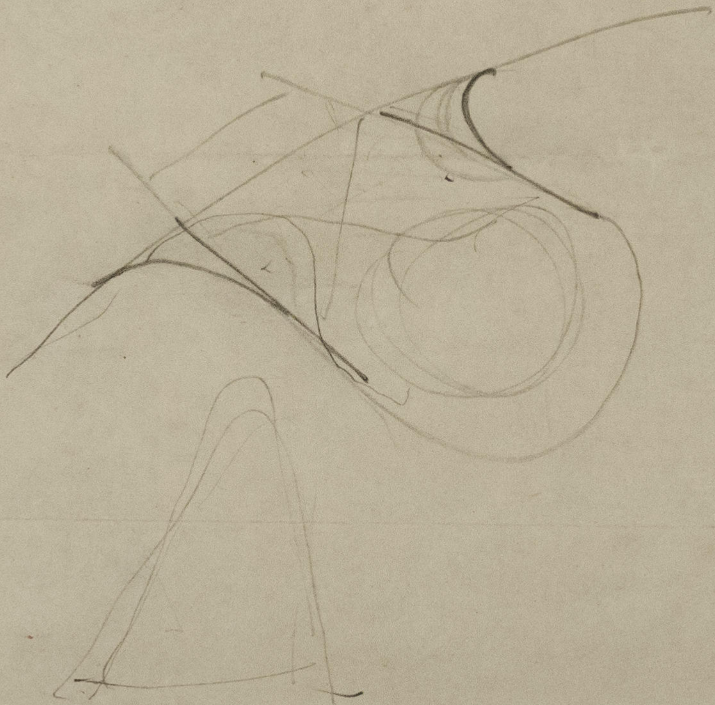

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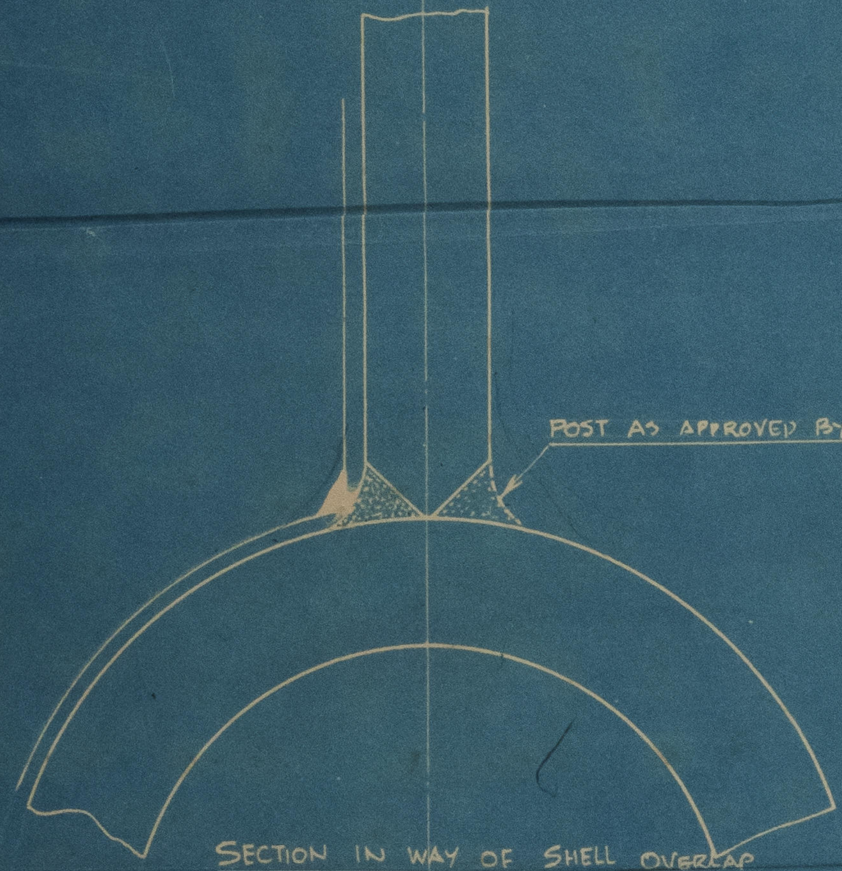
YARD Nos 377-378
ARRAGT. of BOSSING

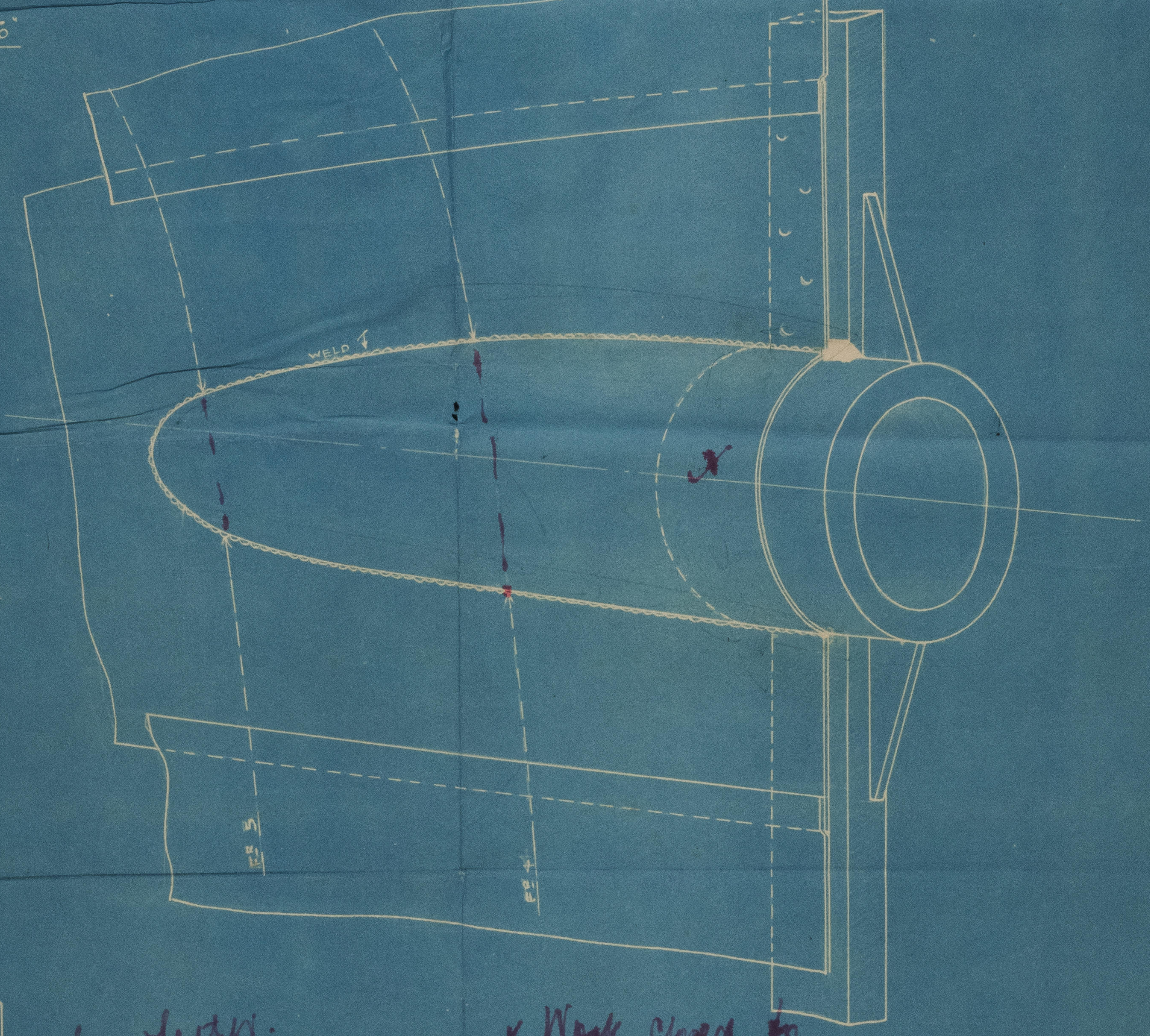
SCALE 1½" = ONE FOOT

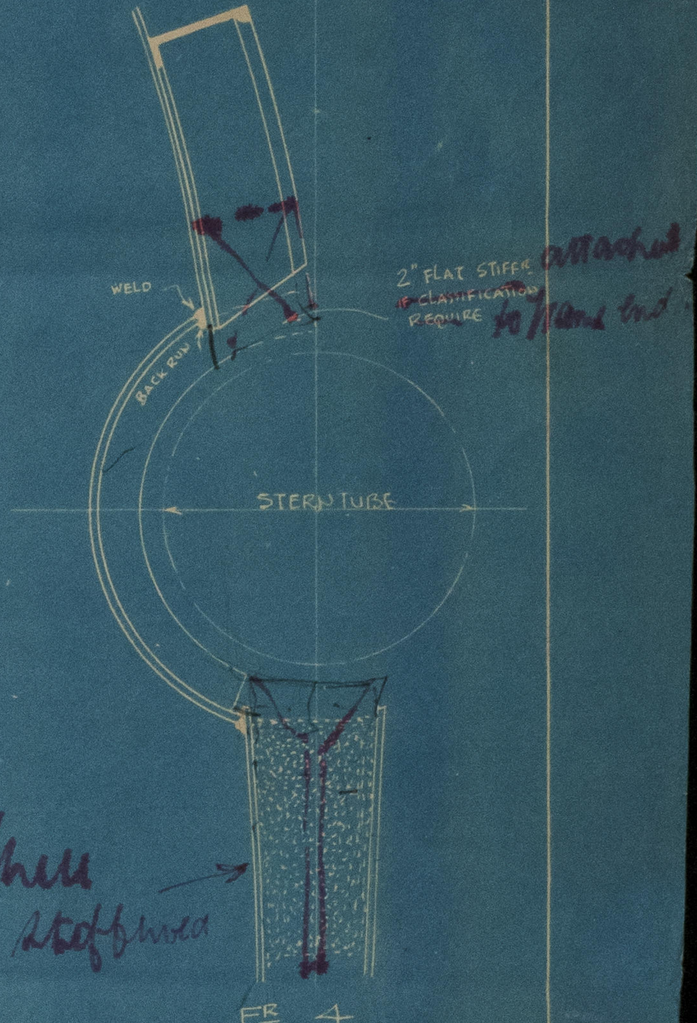
DIMENSIONS – 115-0 B.P. x 27'-6" MLD x 13'-6"

FERGUSON BROTHERS (PORT-GLASGOW) LIMITED SHIPBUILDERS AND DREDGER BUILDERS PORT GLASGOW.
22/2/45


POST AS APPROVED BY LLOYDS

SECTION IN WAY OF SHELL OVERLAP IN WAY OF POST

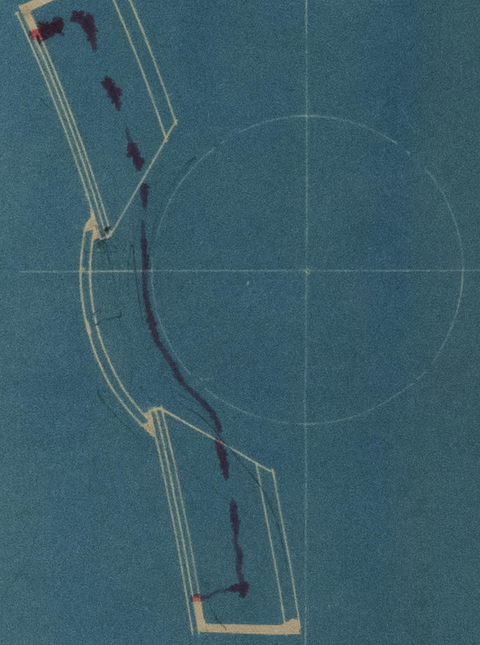

WELD
X
FR 5
FR 4


WELD
BACK RUN
2" FLAT STIFFR. IF CLASSIFICATION REQUIRE
STERN TUBE

attached to frame end

Shell stiffened

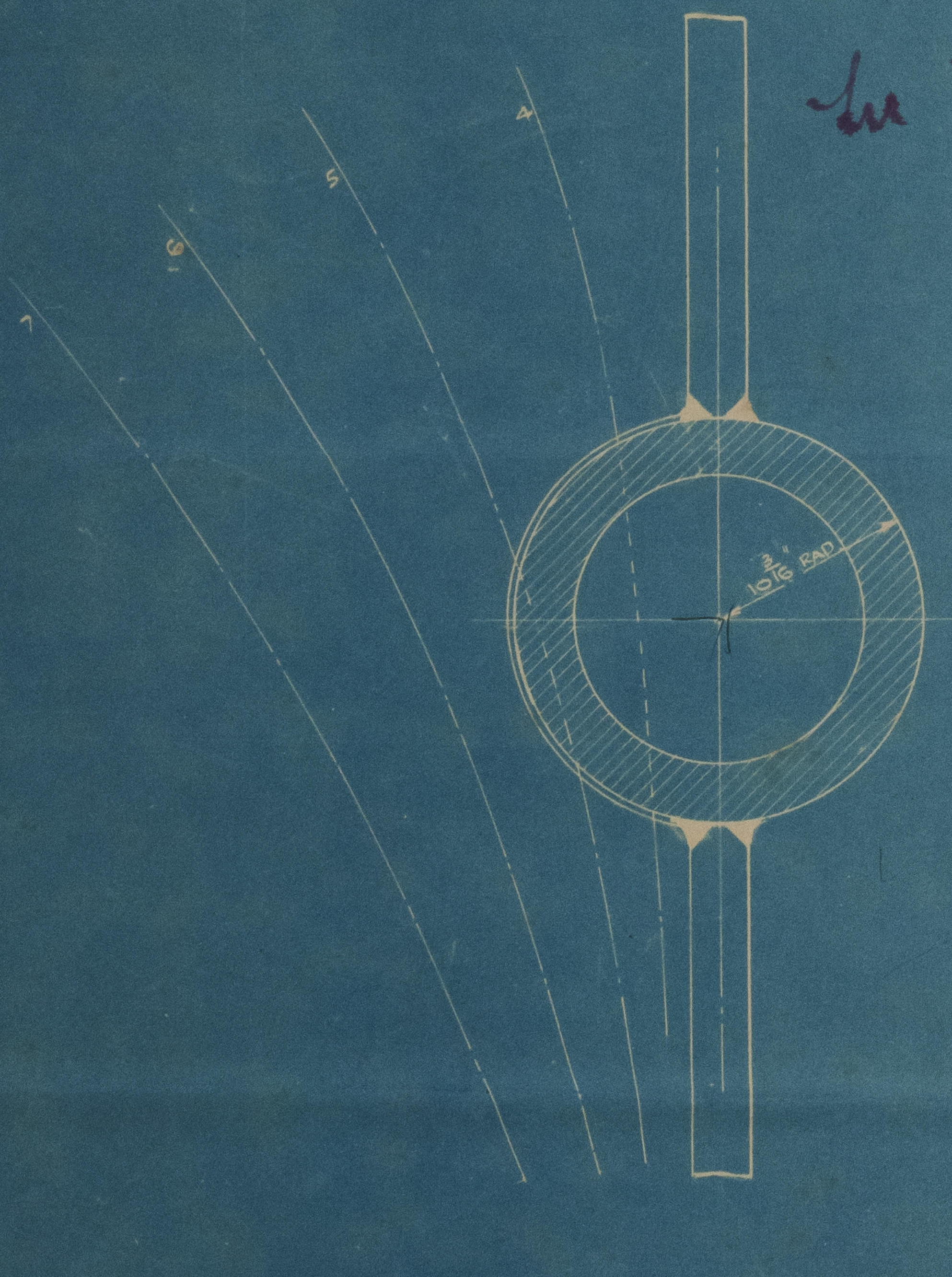
FR 4



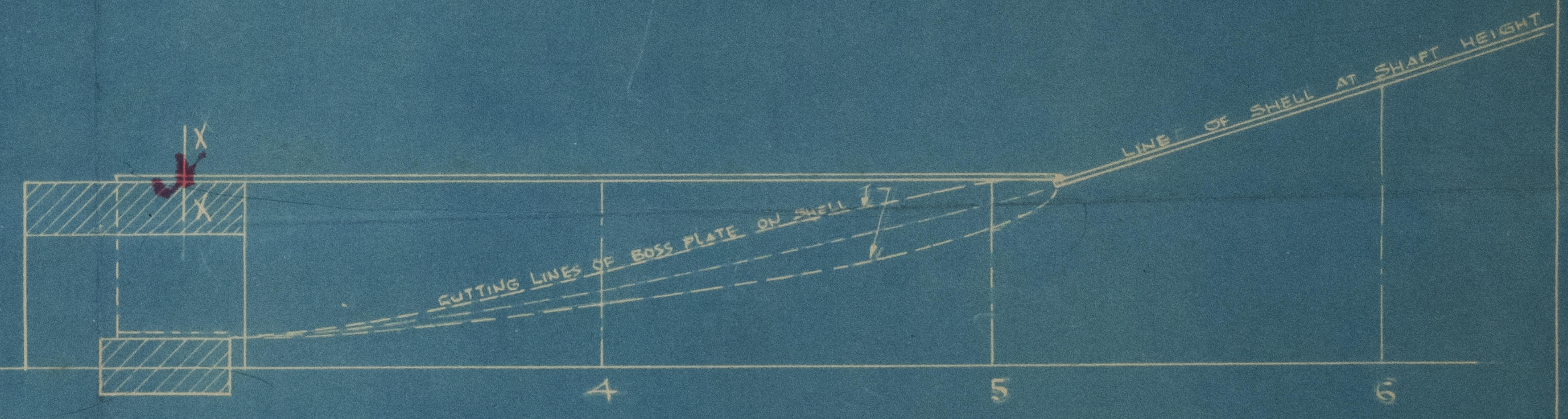
FR 5

See letter.

x Work closed to Surveyors satisfaction.


4
5
6
7
10 3/16 RAD

SECTION
LOOKING FORWARD


X
X
LINE OF SHELL AT SHAFT HEIGHT
CUTTING LINES OF BOSS PLATE ON SHELL
4
5
6

PLAN AT SHAFT HEIGHT

Received 26/2/45

26/2/45.

006564-006572-0085

Ferguson Bros.

Yard No. 377-8.

Rudder & Sternframe

③

377

"EMPIRE FRIEDA".

GRK. F.E. RPT. No. 23237

⑤

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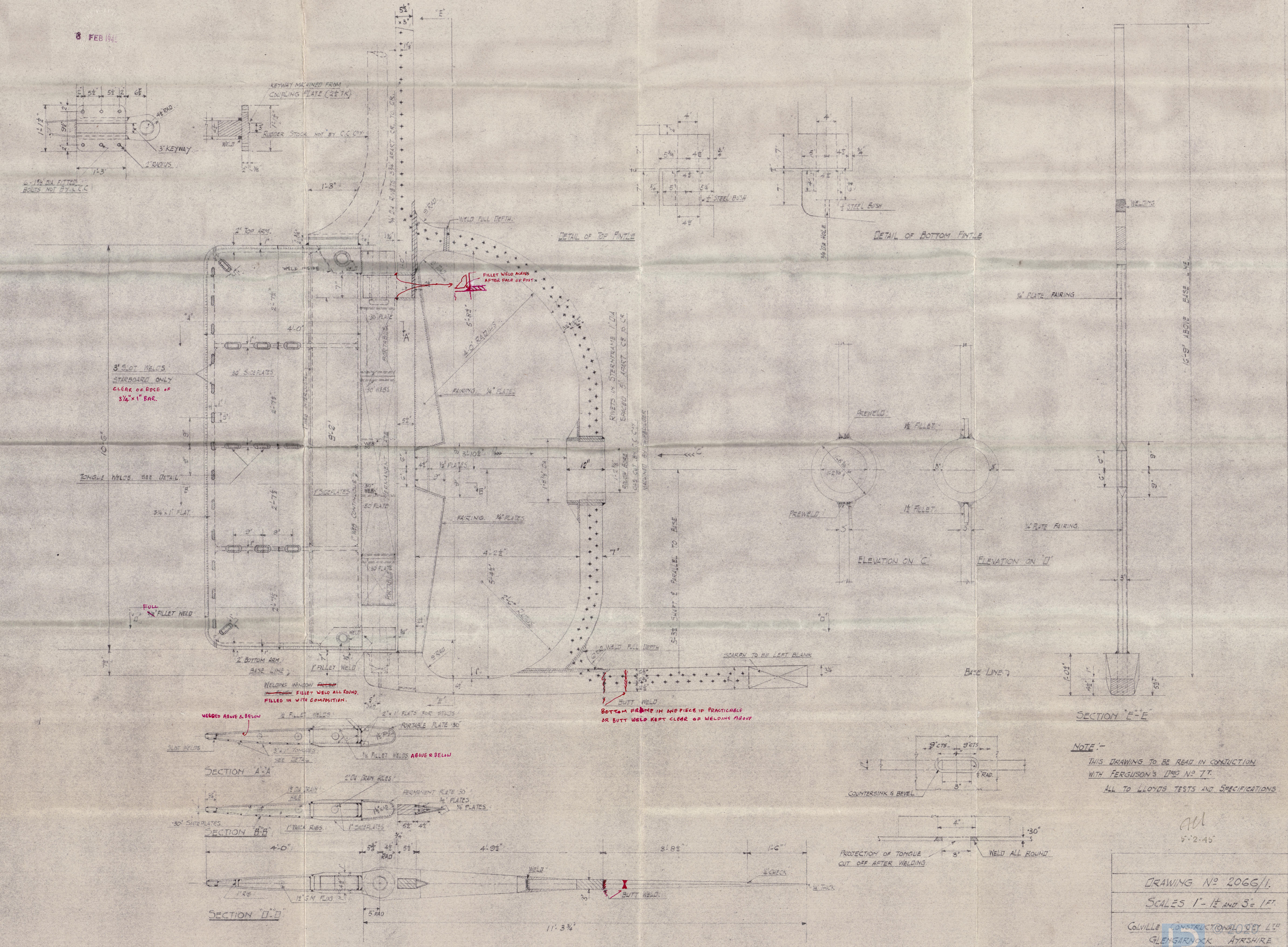
FERGUSON BROTHERS (PORT GLASGOW) LTD

SHIP NOS 377 AND 378 FABRICATED RUDDER AND STERNFRAME

5 FEB 1945


5½"
×3"
"E"
1⅝"
2" 5½" 5½" 2" 6½"
1'-1½"
2"
4½" RAD
3" KEYWAY
2" RADIUS
1'-3"
6 - 1¾ DIA FITTED BOLTS NOT BY C.C.C.
KEYWAY MACHINED FROM COUPLING PLATE (2½" TK)
RUDDER STOCK NOT BY C.C. COY.
WELD
1'-3"
9" RAD
WELD FULL DEPTH.
2" TOP ARM.
1"
WELD INSIDE
WELD
1'-0"
7"
FILLET WELD ACROSS AFTER FACE OF POST
2'-7½"
4'-0"
"A"
A
30" PLATE
PORTABLE
5'-8¾"
4'-0" RADIUS
3" SLOT WELDS
STARBOARD ONLY
CLEAR OF EDGE OF 3¼" × 1" BAR.
30" SIDEPLATES
30" WEBS
FAIRING ¼" PLATES
5½"
3"
9"
10'-6"
9'-2"
2'-7½"
1" WEB INTERCOSTAL
TONGUE WELDS. SEE DETAIL
"B"
3¼" × 1" FLAT.
1" SIDEPLATES
30" PLATE
1" WEB CONTINUOUS
PERMANENT
3'-10½"
1½" PLATES
"C"
12"
RIVETS IN STERNFRAME 1" DIA SPACED 5½ APART C.R. TO C.R.
SOLID BOSS CAST BY C.C. COY
MACHINED BY SHIPBUILDER
FAIRING ¼" PLATES
4'-2½"
7"
5'-4½"
2'-6" RADIUS
PORTABLE
2'-4½"
FULL FILLET WELD
"D"
"D"
5'-3¾" SHAFT ℄ PARALLEL TO BASE
2" BOTTOM ARM.
BASE LINE
1" FILLET WELD
WELD
9" RAD
6" RAD
WELD FULL DEPTH
SCARPH TO BE LEFT BLANK
3¼"
1"
4½"
5" RAD.
"E"
WELDING WINDOW ~~FILLED~~ ~~IN FLUSH~~ FILLET WELD ALL ROUND. FILLED IN WITH COMPOSITION.
BUTT WELD
BOTTOM FRAME IN ONE PIECE IF PRACTICABLE OR BUTT WELD KEPT CLEAR OF WELDING ABOVE
DETAIL OF TOP PINTLE
4"
5¾"
4⅛"
4½"
5"
4⅛"
½" STEEL BUSH
DETAIL OF BOTTOM PINTLE
4"
5"
4⅛"
4½"
½" STEEL BUSH
1¾" DIA HOLE
WELDING
¼" PLATE FAIRING
16'-9" ABOVE BASE ℄
PREWELD
1½" FILLET
PREWELD
1½" FILLET
ELEVATION ON "C"
ELEVATION ON "D"
¼" PLATE FAIRING
9"
6"
9"
3"
BASE LINE
1'-0½"
4½"
5¾"
SECTION "E"-"E"
WELDED ABOVE & BELOW
½" FILLET WELDS
2" × 1" FLATS FOR STUDS
PORTABLE PLATE ·30"
1½" RAD
SLOT WELDS
3" × 1" TONGUES SEE DETAIL
⅜ FILLET WELDS ABOVE & BELOW
SECTION "A"-"A"
2" DIA DRAIN HOLES
1½" DIA DRAIN HOLE
3¼"
PERMANENT PLATE ·30"
½" PLATES
¼" PLATES
1½" RAD
·30" SIDEPLATES
SECTION "B"-"B"
1" THICK RIBS
1" SIDEPLATES
5½" 4½"
9" CTS. 9" CTS.
¼" RAD.
3"
COUNTERSINK & BEVEL
4"
·30"
PROJECTION OF TONGUE CUT OFF AFTER WELDING
3"
WELD ALL ROUND
4'-0"
5½" 4½" 5½"
RAD
4'-9½"
3'-8½"
1'-6"
WELD
¼" CHECK
¼" THICK
1" RIB
1" RIB
12" S.M. FLAG
5" RAD
3"
BUTT WELD
SECTION "D"-"D"
11'-3¾"

NOTE:-

THIS DRAWING TO BE READ IN CONJUCTION WITH FERGUSON'S DRG NO 7T.

ALL TO LLOYDS TESTS AND SPECIFICATIONS

AU
5·2·45

DRAWING NO 2066/1.

SCALES 1" - 1½ AND 3" = 1 FT.

COLVILLE CONSTRUCTIONAL COY LTD
GLENGARNOCK AYRSHIRE
25TH JAN. 45